

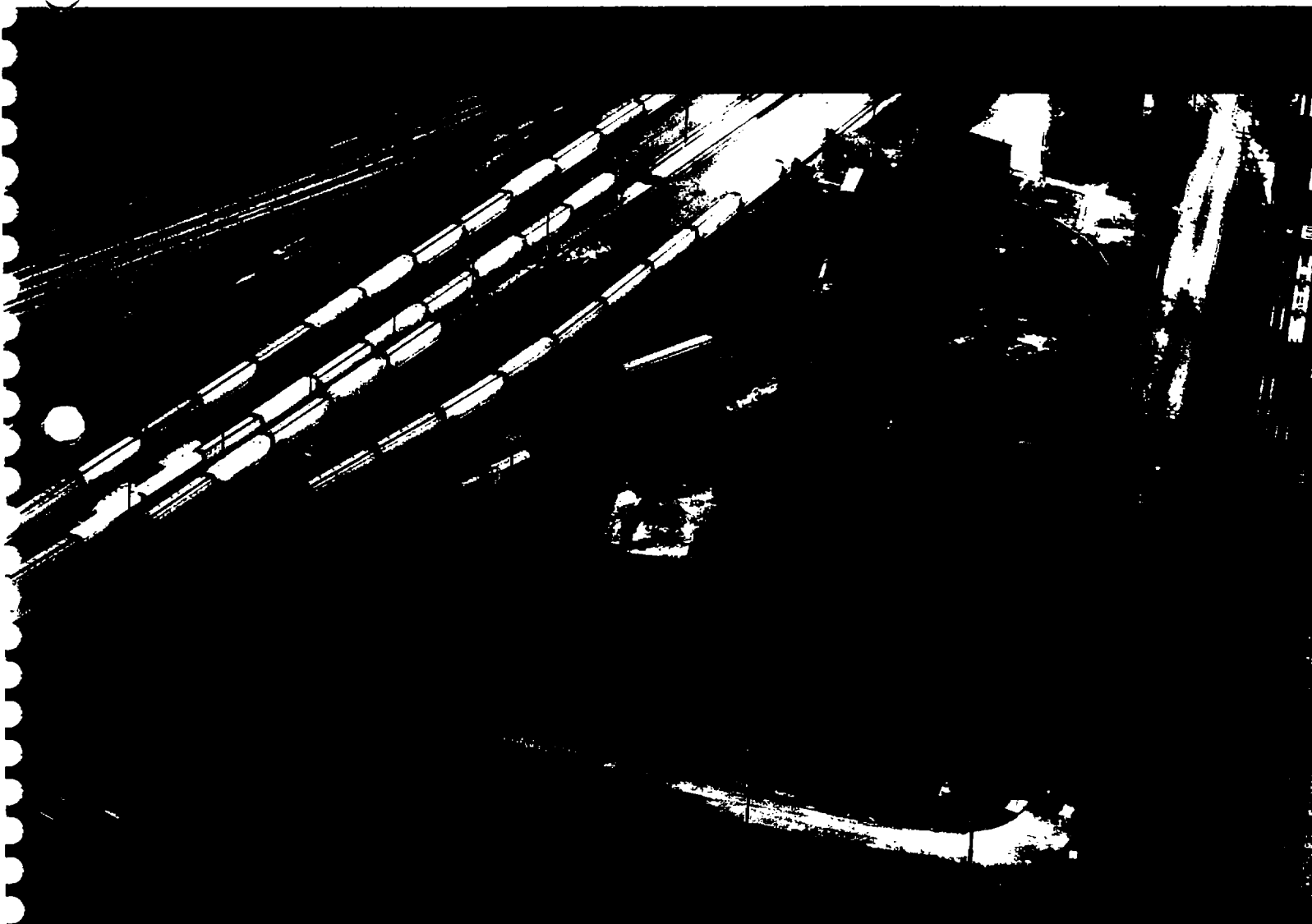
EPA Region 5 Records Ctr.



228796

FINAL OPERATION & MAINTENANCE PLAN

MASTER METALS, INC. SITE • CLEVELAND, OHIO • JUNE, 2003



PREPARED BY:



ENTACT

**FINAL OPERATION AND MAINTENANCE PLAN
FOR
MASTER METALS, INC. SITE
CLEVELAND, OHIO**

**PREPARED BY:
ENTACT & Associates, LLC
Wood Dale, Illinois.**

June 12, 2003

**Operation & Maintenance Plan
Former Master Metals Site
Cleveland, Ohio**

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1.0 PURPOSE AND OBJECTIVES

This Operations and Maintenance (O&M) Plan has been prepared for the Master Metals, Inc. (MMI) site, in Cleveland, Ohio, by ENTACT & Associates, Inc. (ENTACT) on behalf of the Respondents to the Administrative Order of Consent (AOC), Docket No. VW-'02-C-711, for implementation by the Limited Respondents, Bredt-Zanick LLC and Northern Ohio Lumber & Timber Company (NOLTCO). This intent of this O&M plan is to provide for the post-remediation activities for the MMI site, in accordance with the AOC and Statement of Work (SOW).

The purpose of the O&M plan is to provide for the necessary maintenance of the remediated property that is essential in maintaining the long-term effectiveness of the implemented remedy. The remedy for the site included the following key components:

- Demolition of the former facility structures with the exception of the roundhouse and removal off all lead-impacted materials (including soils not covered with concrete) on property as part of a Phase I time critical removal (TCR) action;
- Placement of an asphalt cover over the majority of the site where the existing concrete was in poor condition;
- Excavation and stabilization of all lead-impacted perimeter soils outside of the asphalt or concrete areas that exceeded the performance standards of 1,000 mg/Kg, or until historic slag was encountered, for either placement in low areas on property to be covered with an asphalt cover or disposed of off-site at an approved landfill as nonhazardous waste;
- Backfilling with clean fill and restoration of excavated areas not covered with concrete or asphalt;
- Repair and sealing of the "non-asphalted" concrete areas outside the asphalt cover
-

The operation or maintenance necessary to assure the remedy remains effective over time, include the following:

- Routine inspection and repair, as needed, to maintain the integrity of the asphalt and concrete covers; and
- Routine inspection and maintenance of soil and vegetative cover, including the polyethylene barrier adjacent to the eastern exterior wall of the roundhouse; and
- Routine inspection and repair, as needed, of the 6-foot perimeter fence to ensure that access to the site is controlled;

This document presents the following:

- ♦ **Section 1.0:** Purpose and objectives of the O&M activities:

- ♦ **Section 2.0:** Site background;
- ♦ **Section 3.0:** Description of the O&M Plan including scope and frequency of inspections, and identification and performance of necessary repairs; and
- ♦ **Section 4.0:** Reporting requirements.

2.0 SITE BACKGROUND

2.1 SITE LOCATION

The MMI Superfund Site (the "Site") covered under the AOC includes the former MMI lead facility (the "Facility") located at 2850 West Third Street, Cleveland, Cuyahoga County, Ohio. The Site is situated in Township 7 North, Range 12 West, Section 17, $\frac{1}{4}$ NE, $\frac{1}{4}$ SW, $\frac{1}{4}$ SW, with coordinates obtained from the Facility Index System (FINDS) listed as 41 degrees, 28 minutes, 26 seconds latitude and -81 degrees, 40 minutes, 31 seconds longitude. The site location and features are illustrated in Attachment I of this Plan.

2.2 SITE DESCRIPTION AND FACILITY HISTORY

The MMI property is a triangular-shaped parcel encompassing approximately 4.3 acres in the "flats" area of downtown Cleveland, a heavily industrialized sector of the city. The site is bordered on the west by rail yards owned by the Baltimore & Ohio (B&O) Railroad, the east by West Third Street and B&O railroad tracks, and on the south by a dead-end road and an abandoned industrial property. LTV Steel owns the property to the south and east.

The facility was constructed in 1932 on slag fill by NL Industries, Inc. (formerly National Lead) who owned and operated the facility as a secondary lead smelter, producing lead alloys from lead-bearing dross and scrap materials. In 1979, the facility was purchased from NL Industries by MMI who continued to operate the secondary lead smelter (USEPA, 2001a).

On August 5, 1993, as a result of Resource Conservation and Recovery Act (RCRA) violations, the Ohio EPA Director ordered MMI to cease operating the facility until it could demonstrate compliance (USEPA, 2001a). Operations never did resume at the MMI facility and Bank One of Ohio took possession of all MMI cash collateral and accounts receivable. The former facility president, Mr. Douglas Mickey, is deceased (USEPA, 2001a). The current property owner Bredt-/Zanick LLC.

3.0 OPERATIONS AND MAINTENANCE PLAN

The O&M Plan has been designed to include all necessary tasks that will be required to maintain the effectiveness of the remedy. The primary focus of the O&M Plan is to provide the necessary inspections and repairs needed to maintain the integrity of the areas covered by either asphalt, concrete, or soil (in the localized area adjacent to the roundhouse), and maintenance of the fence to control site access. Inspections will be conducted on an annual basis and the results of the field inspection recorded on the field inspection form included in Attachment II.

No intrusive activities will be permitted through the existing asphalt, concrete or soil covers without written notification to and approval from the U.S.EPA and Ohio EPA prior to initiation of the work. The written notification should include the reason for the intrusive activities; the expected duration of the work and the protective measures to be implemented during the activities.

3.1 ASPHALT AND CONCRETE COVER INSPECTION

Inspection of the concrete and asphalt covers will include an annual visual inspection of the entire area (i.e. asphalt and concrete) for significant cracks or fissures, presence of vegetation, and signs of crumbling or other deterioration of the surface. The annual inspection should be performed in late May in order to promptly address any deficiencies in the asphalt or concrete covered areas noted as a result of winter weather.

Significant cracks are defined as fully penetrating the existing concrete or asphalt surface with a width greater than one-half inch. Any repair to the cover system that is observed to be necessary as a result of the inspection will be performed in general accordance with ODOT Specification 256, within 15 days of the observation; opportunistic vegetative growth should be controlled with an herbicide.

3.2 ROUNDHOUSE AREA

All lead-impacted soils exceeding the site-specific performance standards for lead were excavated to within four feet of the outside wall of the roundhouse, where excavation was terminated due to concerns over the stability of the structure. The residual lead-impacted soils were covered with a 10-foot wide, 4 mil polyethylene liner that extended from the wall of the roundhouse outward covering the 4-foot lead-impacted soil swath, then overlain with clean top soil and seeded, as indicated in Attachment III.

Inspection of the vegetative cover will include an annual visual inspection of the vegetation and topsoil cover for signs of erosion or absence of vegetation. The annual inspection and maintenance activities should be performed in late May in order to promptly address any noted deficiencies in the cover system.

3.3 PERIMETER FENCE MAINTENANCE

The 6-foot-high chain link perimeter fence will be inspected annually to ensure that site access is restricted and gates remained locked during non-business hours. The fencing will be inspected to determine if there are any breaches, holes, erosion rills or animal burrows beneath the fence. Access gates will be inspected and maintained including oiling the hinges and replacing worn closure/lock mechanism. Any necessary repairs will be completed as soon as practicable following the inspection.

4.0 REPORTING

A report describing the results of the inspections and details of any required repairs and maintenance activities will be submitted to the EPA within seven calendar days after completion of the inspection.

The report will contain the following:

- Inspector's name, title and date of the inspection;
- A brief narrative of the inspection results including the completed inspection form;
- A description of any maintenance activities that are completed or planned;
- A detailed discussion of all required repairs needed to maintain the integrity of the cover system and fence at the site;
- Schedule for follow up activities;
- Photographic documentation as warranted.

ATTACHMENT I
SITE FEATURES

ATTACHMENT II
O&M INSPECTION LOG AND EXAMPLE

**Former Master Metals Inc. Site, Cleveland, Ohio
O & M Inspection Log**

Inspector's Name/Company Affiliation: _____ Date of Inspection: _____
Signature: _____

Site Structure	Inspected (Yes/No)	Inspection Observations	Maintenance Work Required or Performed	Completed (Yes/No)	Date Completed
Security Fence:					
• Gates/locks secure and operative					
• Evidence of deterioration					
• Evidence of unauthorized entry					
• Burrowing or tunneling under fence					
• Damaged barbed wire					
Comments					
Asphalt Cover – Integrity					
• Evidence of broken asphalt or fissures					
• Indicate areal extent and location					
Comments					
Concrete Cover – Integrity					
• Evidence of cracks, presence of vegetation, crumbling					
• Indicate areal extent and location					
Comments					

**Former Master Metals Inc. Site, Cleveland, Ohio
O & M Inspection Log**

Site Structure	Inspected (Yes/No)	Inspection Observations	Maintenance Work Required or Performed	Completed (Yes/No)	Date Completed
Roundhouse Soil Cover – Integrity					
• Evidence of Erosion, exposure of polyethylene liner					
• Integrity/ Condition of Vegetative Cover					
Comments					

EXAMPLE

Former Master Metals Inc. Site, Cleveland, Ohio O & M Inspection Log

Inspector's Name/Company Affiliation: John Doe / NOLTCO

Date of Inspection: July 2, 2003

Signature: _____

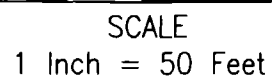
Site Structure	Inspected (Yes/No)	Inspection Observations	Maintenance Work Required or Performed	Completed (Yes/No)	Date Completed
Security Fence:					
• Gates/locks secure and operative	Yes	Secure and operative	None	N/A	N/A
• Evidence of deterioration	Yes	Loose corner on gate	Fencing reattached	Yes	7/2/04
• Evidence of unauthorized entry	Yes	Site secure	None	N/A	N/A
• Burrowing or tunneling under fence	Yes	No burrowing or tunneling	None	N/A	N/A
• Damaged barbed wire	Yes	Barbed wire intact	None	N/A	N/A
Comments: None					
Asphalt Cover – Integrity					
• Evidence of broken asphalt or fissures	Yes	Deteriorated asphalt near storage Bldg. A			
• Indicate areal extent and location	Yes	3 square feet; see attached drawing and photos	Repair asphalt	No	8/2/04
Comments: None					
Concrete Cover – Integrity					
• Evidence of cracks, presence of vegetation, crumbling	Yes	Integrity good	None	N/A	N/A
• Indicate areal extent and location	Yes	N/A	None	N/A	N/A
Comments: None					

EXAMPLE**Former Master Metals Inc. Site, Cleveland, Ohio
O & M Inspection Log**

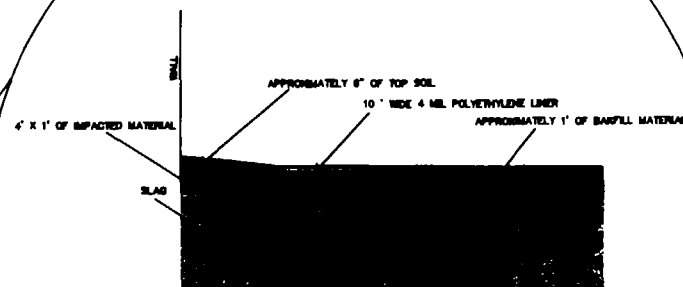
Site Structure	Inspected (Yes/No)	Inspection Observations	Maintenance Work Required or Performed	Completed (Yes/No)	Date Completed
Roundhouse Soil Cover – Integrity					
• Evidence of Erosion, exposure of polyethylene liner	No				
• Integrity/ Condition of Vegetative Cover	Yes	Fill exposed in 5 foot long area bordering Third and adjacent to, and north of, entrance gate	Reseed area	Yes	July 2, 2004
Comments					

ATTACHMENT III

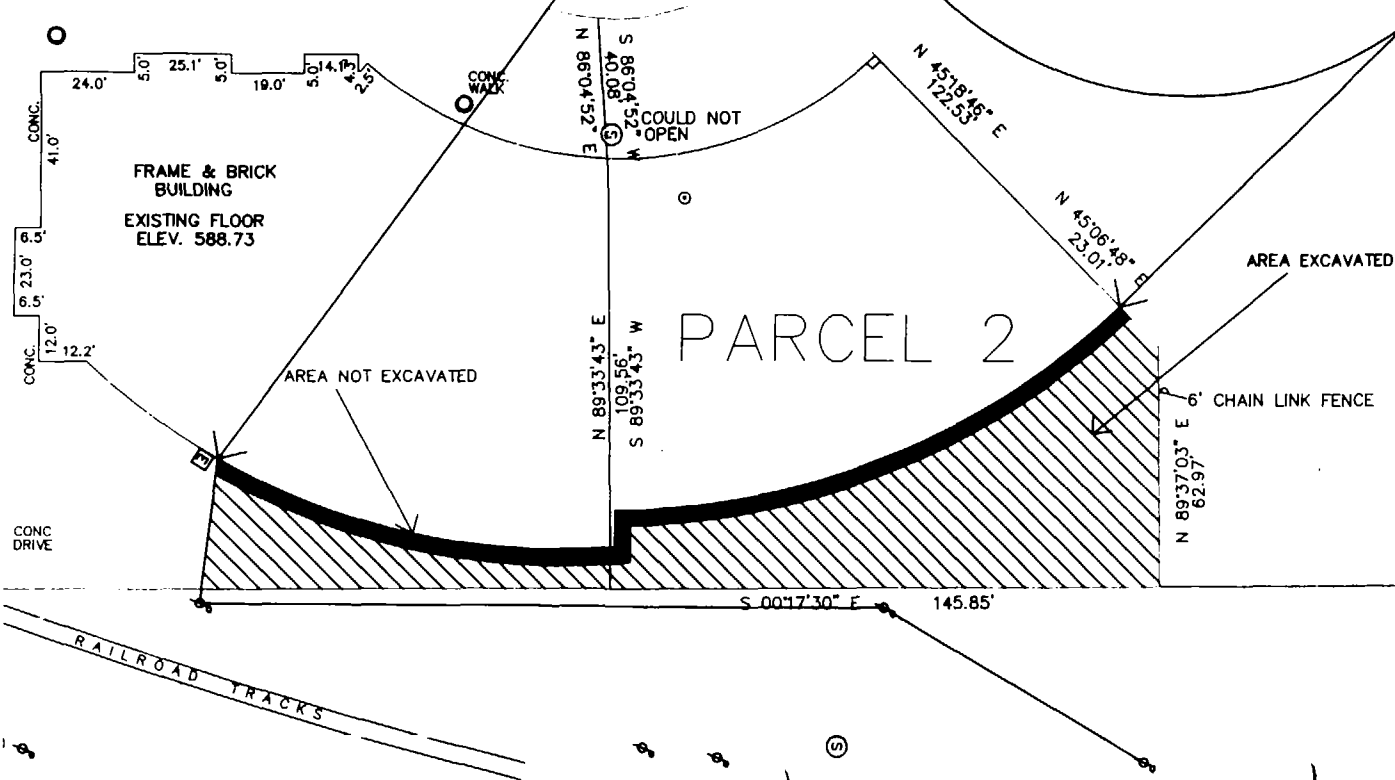
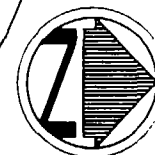
ROUNDHOUSE SOIL EXCAVATION



GRASS & DIRT



SCALE
1 Inch = 10 feet



LEGEND

- H.C. - HUSBAND SERVICE
 ON ABSECE
 D.L. - DAILY AND WEEKEND
 ON ABSECE
 G.S. - GROUND SERVICE
 ON ABSECE
 T.P.A. - TRUE PLACE OF
 ABSECE
 P.A. - PLACE OF ABSECE
 IN - INDENTURE
 - HUSBAND SERVICE
 A - TYPE OF SERVICE
 - DAY OF ABSECE IN MONTH
 OF YEAR
 L - NO
 B - BLOOD
 S - SILENT
 SPS - SPOUSE
 CLEN - CLOTH LENGTH
 T - T
 A - FALLOUT/STAY HAL. ETC.
 - POWER FUL
 - LIGHT FUL
 - TELEPHONE FUL
 - FREIGHT
 - NO
 - WATER WASH
 - WATER WASH
 - - - FEMIN
 W - AND WASH
 - - -
 - - -
 R/W - RENT-OF-ROOM
 - ONE LINE MARCH
 O - MARBLE
 - BROWN MARBLE
 - BROWN LINE
 E - CONTINUE



CONTACT

NL Industries

Master Metals - Cleveland
Cleveland, Ohio

Round House Soil Excavation

DATE: April, 18 2003

PROJECT NUMBER: C842

FILE NAME: MMClev.

FIGURE NUMBER: 1

[illegible]

DATE	
NON CUK	

2000000

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**CONFIDENTIAL INFORMATION OF
ENTACT AND ASSOCIATES, LLC & ENTACT, INC.**

Entact and Associates, LLC and Entact, Inc. (ENTACT) uses proprietary technology in additive and treatment processing to achieve its fixation and permeability results. Patents are both issued and pending, including U.S. Patent # 5,588,947, # 5,591,116, and # 5,667,696.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

300002

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230138

August 6, 2003

REF: TO THE ATTENTION

Sent Via Electronic Mail and the US Postal Service

Mr. Terry Casey
Efficasey Environmental, LLC
14015 Park Drive, Suite 109
Tomball, Texas 77375

RE: Master Metals, Inc., Site, Approval Notification of the Final Operations and Maintenance Plan

Dear Mr. Casey,

The U.S. Environmental Protection Agency (U.S. EPA) and the Ohio Environmental Protection Agency (Ohio EPA) have completed their review of the revised Operation and Maintenance (O&M) Plan dated June 12, 2003 for the Master Metals Site, Cleveland, Ohio. Neither the U.S. EPA nor the Ohio EPA has any further comments to the document. The O&M Plan is considered approved and in compliance with the Statement of Work and the Administrative Order on Consent.

If you have any questions or need additional information, please do not hesitate to ask.

Sincerely,

Gwendolyn S. Massenburg
Remedial Project Manager

cc: Sheila Abraham, Ohio EPA
Susan Prout, ORC
JP Singh, Chief RRB#2/RRS#5